

## FROM THE MONITOR TO THE LATEST DREADNOUGHT

A BATTLESHIP RIFLE OF 14-INCH CALIBRE AND 54 FEET LONG WHICH CAN DRIVE A 1400 POUND SHELL THROUGH 15 INCHES OF HARDENED STEEL AND ONE OF THE MONITOR'S GUNS WITH ITS 160 POUND SOLID SHOT.

MONITOR'S 11-INCH SMOOTH-BORE

THE MERRIMACK RAMMING THE MONITOR



JOHN L. WORDEN  
COMMANDER OF THE MONITOR

The last surviving officer of the Monitor, Capt. Louis N. Stodder, died in Brooklyn October 8 last, five months before the fiftieth anniversary of the memorable fight in Hampton Roads on March 9, 1862, between Ericsson's steam battery and the Confederate armored Merrimack. Capt. Stodder was with the Monitor from the day she went into commission until she foundered off Cape Hatteras early on the morning of December 31, 1862, and he had also the distinction of being the first person aboard the Monitor to be injured in that battle.

Acting Master Stodder, for such was his official rank at the time, was stationed in the turret of the Monitor, and until wounded he guided the mechanism controlling the revolving motion of the turret. For more than an hour he swung the turret on its axis and brought the Monitor's guns to bear upon the foe, and then, as he was engaged on the lookout, he was disabled by concussion of the brain. His injury resulted from his knee touching the turret at the instant a heavy shot from the Merrimack hit that ironclad shield. The fight was concluded before he was able to resume duty.

Again, Acting Master Stodder showed the stuff of which he was made in the final hours of that little craft, when she pitched in the storm which sealed her fate and while the seas swept over her deck from stem to stern, a time when courage and calmness of mind meant everything in serving submarines to steadiness and duty. He was particularly commended by his commanding officer for his conduct on that occasion.

Although Capt. Stodder did not live long enough to take part in the semi-centennial celebration of the battle, he did witness a memorable revolution in methods of naval construction, the beginning of which was the encounter of the two new types of warships in Hampton Roads. The extent of that revolution may be measured by the figures comparing the Monitor and her armament with the new battleship Nevada.

New Yorkers have a special reason to be interested in the celebration of the Monitor's victory, because that revolutionary vessel was planned and hastened to completion right here. There are not many New Yorkers, however, who know that it was proposed to use the Merrimack in attacking this city. This is a bit of history which puts a different complexion upon the purpose of the Confederate authorities before their steam battery had met the Monitor and found a check in her beligerent activities.

On March 7, 1862, the Confederate Secretary of the Navy, Mr. Mallory, wrote as follows to Flag Officer Buchanan, then in command of the Merrimack, or the Virginia, as she was known to the South:

Submit for your consideration the attack of New York by the Virginia. Can the Virginia steam to New York and attack and burn the city? She can, I doubt not, pass Old Point safely and in good weather and a smooth sea could doubtless go to New York. Once in the bay, she could shell and burn the city and the shipping.

Such an event would eclipse all the glories of the combat of the sea; would place every man in it preeminently high and would strike a blow from which the enemy could never recover. Peace would inevitably follow. Bankers would withdraw their capital from the city. The Brooklyn navy yard and its magazines and all the lower part of the city would be destroyed and such an event by a single ship would do more to achieve our immediate independence than would the results of many campaigns.

Can the ship go there?  
The final question of the letter was answered by the arrival at Hampton Roads of the Monitor and by the effective manner in which she met her Confederate rival on Sunday, March 9, 1862. But for the Merrimack's attack upon the Federal fleet of wooden ships on the day before the Monitor, obeying urgent

orders from Washington, would have gone straight on to guard the national capital, and thus in a way Confederate impetuosity saved the rest of the Union navy near Hampton Roads by diverting the Monitor from the Potomac.

The Confederate Secretary of the Navy, Mr. Mallory, had served as chairman of the Naval Committee of the United States Senate for some years before the outbreak of the civil war and he was peculiarly fitted to see the naval needs of the Southern cause. He declared that "inequality of numbers may be compensated by invulnerability," and the Merrimack was the fulfillment of that dictum.

After casting about for the design of an armored ship new in its entirety and finding that it was impossible to build a vessel of that sort within the time available Mr. Mallory and his advisers determined to raise the Merrimack, which had been sunk at the Norfolk Navy Yard upon its abandonment by the Federal authorities, and to fashion that craft into an ironclad steam battery capable of coping with the wooden ships of the Union fleet. It was proposed to make her formidable as a ram quite independently of her guns—"like the bayonet charge of infantry"—and in this distinctive character the Merrimack fulfilled the expectations of her designers.

The Confederates lost no time in raising the Merrimack, and early in June, 1861, she was placed in dry dock for reconstruction. The Confederates managed to turn out in Richmond the plating needed to cover the protected casemate of the Merrimack, or, as they called her, the Virginia. The skill of Lieut. John M. Brooke provided a way to convert the Federal cannon left at Norfolk into far more formidable weapons by rifling them and shrinking upon their breeches metal bands to make them better able to withstand the heavier charges of powder intended to drive their shells.

It was that officer who made possible the characteristic battery with which the Merrimack was armed, and it was his rifled guns which left their heaviest impress upon the Monitor. In fact it was the shell from one of these modified weapons that damaged the pilothouse of Ericsson's battery and blinded and incapacitated Lieut. Worden.

Work upon the Merrimack dragged along over months because of the delayed delivery of the iron plating needed, and it was not until February 17, 1862, that the Confederate steam battery was placed in commission. It was more than ten days later before she had her magazines stowed with powder; and when she left Norfolk to attack the Union vessels on March 8, she was really on her trial trip, some parts of the vessel being incomplete and yet untested. It has been said that she made a speed of eight or nine knots, but it is quite probable that she did not do more than seven at the outside. The desire to put her to a battle test in haste was for the purpose of anticipating the arrival of the Monitor, which was then expected.

The Federal Navy Department gave consideration to the building of armored vessels only after it became aware of the

Confederate plans for the remodeling of the Merrimack. Congress was inspired to activity through the efforts of private citizens and passed an act appropriating a million and a half dollars for vessels of the new type early in August, 1861. The United States had never built an ironclad, and the Navy Department was uncertain as to the best way to dispose of the money thus provided. A board of officers was appointed but they had no practical knowledge of this development of naval architecture and time was lost in their deliberations. The contract for the Monitor was not signed until the first week in October following, but Capt. Ericsson and his civilian backers had confidence in the Monitor type, and the plates for the vessel were actually passing through the rolling mills before Ericsson was legally authorized to proceed with the construction of the craft.

Even then his task was not easy; many of the navy officials were inclined to be either sceptical or unduly exacting, and with this handicap he had the added burden of developing the details of his ship hour by hour and day by day as the work was pushed along. Fortunately the idea of his vessel was one to which he had given serious study for a number of years. It was only by working night and day that the Monitor was launched upon January 30, 1862; and a little less than a month later, on February 25, the little steam battery of 776 tons was put into commission. Because of the novelty of the craft and the fairly desperate character of the service cut out for her, her crew was recruited from volunteers.

On February 19 the Monitor left Greenpoint, L. I., under her own steam for the navy yard at Brooklyn, but because of engineering imperfections she had to be towed to her docking place. On February 27 she left the navy yard for sea,

but steered so badly that Worden deemed it best to return. It was not until March 3 that the little vessel was ready for a trial run, and three days later, at 4 o'clock in the afternoon, she headed seaward for her run to the Virginia capes. She was accompanied by the United States steamers Currituck and Sachem and the tug Seth Low. Worden reported:

"In order to reach Hampton Roads as speedily as possible whilst the fine weather lasts I have been taken in tow by the tug."

The deck of the Monitor was only eighteen inches above water, and during that trip the weather was boisterous for a while, which proved that she had not power enough in her engines to drive her unassisted in a storm. It would have been impracticable to work her guns, only five feet above her waterline, in anything but placid waters, even though the ship as a sea boat proved to be unusually steady. On the evening of March 8 she entered Chesapeake Bay.

During that afternoon the Merrimack had been busy and had shown how little capable were the wooden ships of the

#### The Monitor and the Latest Dreadnought Compared.

1862	1912
MONITOR, NEVADA.	MONITOR, NEVADA.
Length.....172 feet.	575 feet.
Displacement.....776 tons.	27,500 tons.
Speed.....4 knots.	21.5 knots.
Complement.....64.	1,072.
BATTERY.	
Monitor: One gun at a time 160 lbs.	10
Nevada: 14-inch guns.....10	10
10-inch guns.....500 lbs.	21
WEIGHT OF BROADSIDE.	
Monitor: One gun at a time 160 lbs.	10
Nevada: Ten 14-inch.....14,000 lbs.	10
Ten 5-inch.....500 lbs.	10
MONITOR, NEVADA.	
Cost.....\$275,000	\$10,000,000

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right within range of the Merrimack, completely covering my ship as far as possible with her dimensions, and much to my astonishment laid herself right alongside the Merrimack, and the contrast was that of a pyrexia to a giant. Gun after gun was fired by the Monitor, which was returned with whole broadsides from the rebels with no more effect, apparently, than so many pebble stones thrown by a child.

The Merrimack finding that she could make nothing of the Monitor turned her attention once more to me. On her second approach I opened upon her with all of my broadside guns and ten inch pivot a broadside which would have blown out of water any timber built ship in the world. I had concentrated upon her an incessant fire from my gun deck, spar deck and forecastle pivot guns and was informed by my marine officer, who was stationed on the poop, that at least fifty solid shot struck her on her slanting side without producing any apparent effect.

By the time she had fired her third shell the little Monitor had come down upon her, placing herself between us, and compelled her to change her position, in doing which she (Merrimack) grounded, and again I poured into her all the guns which could be brought to bear upon her. As soon as she got off she stood down the bay, the little battery (Monitor) chasing her with all speed, when suddenly the Merrimack turned around and ran full speed into her antagonist.

For a moment I was anxious, but instantly I saw a shot plunge into the iron roof of the Merrimack which surely must have damaged her. For some time after the rebels concentrated their whole battery upon the tower and pilot house of the Monitor, and soon after the latter stood down for Fortress Monroe, and we thought it probable she had exhausted her supply of ammunition or sustained some injury.

Soon after the Merrimack and the two other steamers headed for my ship and I then felt to the fullest extent my condition. I was hard and immovably aground and they could take position under my stern and rake me. I had expended most of my solid shot, and my ship was badly crippled and my officers and men were worn out with fatigue, but even then in this extreme dilemma I determined never to give up the ship. On ascending the poop deck I observed that the enemy's vessels had changed their course and were heading for Craney Island.

When the Monitor drew away from the Merrimack at the time the Confederate vessels seemed to be about to return to attack the Merrimack it was because one of the Merrimack's shells had exploded against the pilot house and temporarily disabled Lieut. Worden, and before the Monitor could take up the action against the pilot of the Merrimack, fearing the falling tide, had suggested the wisdom of her withdrawal.

Just how many projectiles the Merrimack fired during her four hours battle with the Monitor is not known, but she hit the Federal craft twenty-two times, twice on the pilot house, eight times in the side armor, three times upon the iron deck, and nine times against the turret. None of these blows, save the one that disabled Worden, did any material harm. At a distance of only thirty yards a sixty-eight pounder rifled shell from the Merrimack hit the Monitor's turret at an angle of ninety degrees, but only indented the iron two and a quarter inches and

Federal navy of resisting the assaults of that ironclad steam battery. She had rammed and sunk the Cumberland and had forced the Congress to surrender. The frigate Minnesota escaped destruction at the same time only because the falling tide compelled the Confederate battery to withdraw toward her base at Norfolk for the night.

The wooden ships had fought so gallantly that they had succeeded in impairing the offensive powers of the Merrimack, knocking off the muzzles of two of her guns and leaving her with but eight effective weapons to renew the contest on the morrow. Besides that the steam battery's ram had been sacrificed in sinking the Cumberland, and to that extent the Merrimack was far less formidable. Such was the state of affairs when the Monitor reached Hampton Roads at 9 o'clock that evening and was immediately dispatched to assist the Minnesota, then aground near Newport News.

The report of Capt. Van Brunt of the Minnesota tells of the situation in which his ship was at the time and of the state of mind of all on board his vessel:

At 2 A. M. the iron battery Monitor \* \* \* came alongside and reported for duty and then all on board felt that we had a friend that would stand by us in our hour of trial.

At 6 A. M. the enemy again appeared counting down from Craney Island, and I beat to quarters, by the way, the past my ship and were heading for Fortress Monroe, and the retreat was beaten to allow my men to get something to eat. The Merrimack ran down near to the Rip Raps and then turned in to the channel through which I had come. Again all hands were called to quarters and when she approached within a mile of us I opened fire upon her with my stern guns and made signal to the Monitor to attack the enemy.

She immediately ran down in my wake.

March 9. \* \* \*

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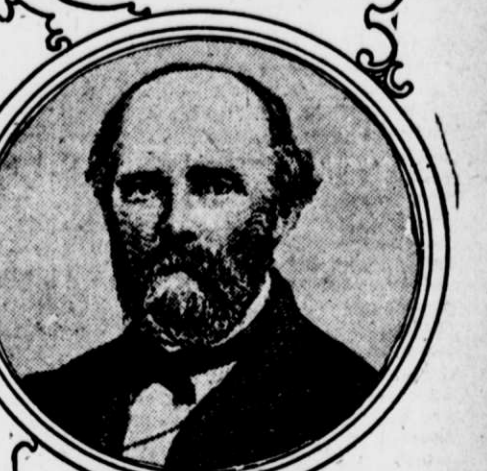
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LIEUTENANT CATESBY JONES,  
COMMANDER OF THE MERRIMACK

could not break its way through the eight inches of protecting metal.

The Monitor fired forty-one solid 160 pound shot from her two eleven inch smooth bore guns, but none of these did any serious harm to the Merrimack; her four inches of iron and the backing of oak and pine two feet thick proved a sufficient bulwark even at the closest range. Apart from this, the Monitor's shot were not homogeneous, and that "caused them to go almost anywhere except where the gun was aimed."

Not a man was killed aboard either the Monitor or the Merrimack, and those injured were stunned by the concussion of shot and shell against armored shields, the men inadvertently touching the plated walls at the moment of impact. The Merrimack's shell projectiles broke up against the armor of the Monitor, although they were fired with a higher velocity than the solid shot of the latter's guns.

The Merrimack might have done more damage had she used solid shot, and the fire of Ericsson's battery might have been more effective if the eleven inch smooth bores had used a bigger charge, fifteen pounds of powder being expressly prescribed by the Navy Department, while it was afterward learned that twice as much could have been used without risk to the weapons. Had the Merrimack not rammed the Cumberland the day before her fight with the Monitor, thus losing her armored bow of cast iron, the little Federal battery might have been gravely hurt when the Merrimack tried to run her down. That was about the most critical moment in the whole action and the likelihood chance the Confederates had of sinking Worden's ship or putting it out of action.

Knowing the might of modern naval ordnance, it seems remarkable that those two vessels could fight at arm's length for four hours without seriously harming each other. The action served to show that neither ship was strong enough in attack to beat down the defenses of the other, and they drew apart each unbeaten and each incapable of beating her rival. In her work of protecting the Minnesota the Monitor was in effect a victor, and thereafter the Merrimack had a worthy foe with which to contend, and one capable of standing successfully between the Confederate steam battery and the wooden ships of the Federal naval force.

Profiting by his fight with the Monitor, Lieut. Catesby Jones took the Merrimack back to Norfolk to dock her for repairs and to strengthen her so that she would be the better able to try conclusions later with the Monitor with a better chance of winning against Ericsson's production. In fact, the Merrimack was so modified and she did her best to entice the Monitor into a second combat, but the commander of the Federal vessel was not free to follow his own impulses, and the Monitor remained inactive so far as the Confederate steam battery was concerned.

That was strategy on the part of the Union authorities, which seemed to some critics at the time to bear the complexion of lacking courage. It was, however, the only way by which the Federal fleet could be safeguarded and the Merrimack held confined to the waters adjacent to her base at Norfolk. Later when the Confederate military support of that base was forced to withdraw by reason of the growing menace of the Union army the Merrimack tried to pass up the James River to supplement the Confederate batteries there, but lack of water prevented the carrying out of that move, and the steam battery was blown up by her own people to prevent her falling into the enemy's hands.

The fight between the Monitor and the Merrimack is memorable because it proved by the test of battle that wooden ships were outclassed, and blazed the path to radical departures in naval architecture.

#### SOCIALISM IN ALASKA.

Natives Cheerfully Share Their Money and Fish With Their Neighbors.

TACOMA, Feb. 17.—J. M. Blinn has returned to winter here after spending eighteen years on Kodiak Island, southwestern Alaska. On returning he saw an auto for the first time. He is one of the wealthiest men on Kodiak, with a prospect of accumulating still more, through his Salmon cannery interests. Blinn says: "Kodiak has as good a climate as Puget Sound. The island is 125 miles long and about thirty wide. It is covered with hills, but the valleys are very productive, growing anything that can be raised in Washington. The chief industry is fishing. The population is about 2,500, of whom 200 are whites and the rest Indians and half-breeds. Twenty years ago the chief industry was seal hunting, which the Government has stopped. Kodiak, where I live, is the largest settlement, and being 107 years old, I think, the oldest town in Alaska. The Russians had their capital at Kodiak before moving it to Sitka. We have five schools with twelve teachers

and 120 pupils, including a manual training school.

"The people are somewhat socialist. When I went there, if a man caught an otter, received \$150 for the skin and invested the money in food his neighbors would all come in and help him eat it up. The same idea prevails yet to some extent. Fish and clams are plentiful. Two men go out and in two hours will catch half a boatload of halibut or salmon enough to supply the town. On their return everybody in the village helps himself as a matter of course. They live a happy, care free life, though it may not encourage thrift. The schools are teaching them how to save. We have a Baptist mission on Wood Island, a mile and a half from Kodiak. Before the Government allowed a saloon on the island every man's house was his distillery. Drunken fights and murders were then not uncommon. Ten years ago no saloon was licensed. Since then there has not been one-tenth of the drunkenness there was before. Race suicide is unknown; hardly a family has less than five children and sometimes there are twice that many.

#### THE BIG POWER COAL WAGON.

Why It Is in Some Ways the Most Striking of All Automobile Vehicles.

The increasing use of power commercial vehicles is shown in no way more strikingly than in the power coal wagons. Here, for instance, is one of seven ships capacity, a big wagon. It is aside, discharging; standing, not projecting out into the street, but ranged close along the curb, and, big as it is, occupying there but half the space that a wagon drawn by horses would take up.

From time immemorial coal wagons, horse drawn, have been seen moving along the streets with the horses on a walk, but the big power coal wagon moves twice as fast or faster; ponderous as it is, it mooseys along steadily at six or eight miles an hour. Thus the contrast between it and its horse drawn predecessor is even stronger than that between the pleasure automobile and the carriage drawn by horses, which moved at a trot with some speed; and so the big power coal wagon becomes in some ways the most striking of all automobile vehicles.